Amendments to the Specification

Please rewrite the section heading on page 1, line 5 as follows:

~~TECHNICAL~~ FIELD OF THE INVENTION

Please rewrite the section heading on page 1, line 12 as follows:

BACKGROUND ~~ART~~OF THE INVENTION

Please rewrite the section heading on page 3, line 25 as follows:

~~DISCLOSURE~~SUMMARY OF THE INVENTION

Please rewrite paragraph [0012] as follows:

[0012] ~~[1] A~~In a first embodiment of the invention, a selectively permeable membrane type reactor ~~comprising~~is provided, that includes a catalyst for promoting a chemical reaction, a selectively permeable membrane which selectively allows a specific component to pass therethrough, and a carrier for disposing the catalyst and the selectively permeable membrane, the carrier being a tubular body having two or more gas passages (cells) partitioned and formed by a partition wall formed of a porous body, the catalyst being independently disposed in some of the cells, the selectively permeable membrane being independently disposed in the remainder of the cells, and the cell (reaction cell) in which the catalyst is disposed and the cell (recovery cell) in which the selectively permeable membrane is disposed being adjacently disposed.

Please rewrite paragraph [0013] as follows:

[0013] ~~[2] The selectively permeable membrane type reactor according to [1], wherein the~~ carrier preferably includes the cells partitioned and formed by the partition wall with a thickness of 10 μm to 3 cm.

Please rewrite paragraph [0014] as follows:

[0014] ~~[3] The selectively permeable membrane type reactor according to [1] or [2], wherein the~~ catalyst preferably is a pellet-shaped or bead-shaped catalyst, and is disposed in the carrier by filling the cell of the carrier with the pellet-shaped or bead-shaped catalyst in a packed bed manner.

Please rewrite paragraph [0015] as follows:

[0015] ~~[4] The selectively permeable membrane type reactor according to [1] or [2], wherein the~~ catalyst preferably is in the shape of a thin film and is disposed in the carrier by forming the catalyst in the shape of a thin film on a surface of the partition wall which partitions and forms the cells of the carrier.

Please rewrite paragraph [0016] as follows:

[0016] ~~[5] The selectively permeable membrane type reactor according to any of [1] to [4], wherein the~~ carrier preferably includes one center cell disposed to include a center axis of the carrier and two or more peripheral cells disposed adjacent to the center cell on a periphery of the center cell, the catalyst is disposed in either one of the center cell, or the peripheral cells, and the selectively permeable membrane is disposed in the another.

Please rewrite paragraph [0017] as follows:

[0017] ~~[6] The selectively permeable membrane type reactor according to any of [1] to [5], wherein the~~ carrier preferably is a tubular body with a square, rectangular, or regular hexagonal end face.

Please rewrite paragraph [0018] as follows:

[0018] ~~[7] A~~In another embodiment, the selectively permeable membrane type reactor ~~comprising~~includes a plurality of the selectively permeable membrane type reactors

~~according to [6]~~, where the selectively permeable membrane type reactors ~~being~~are integrated to form a composite reactor.

Please rewrite the section heading on page 7, line 22 as follows:

~~BEST MODE FOR CARRYING OUT~~DETAILED DESCRIPTION OF THE INVENTION

Please rewrite paragraph [0063] as follows:

[0063] The raw material gas G_1 including methane, steam, and the like is introduced through a gas inlet 40a of the reaction cell 40 and a gas inlet (not shown) of the reaction cell 42 at a high temperature of about 300 to 1000°C. In the selectively permeable membrane type reactor ~~10~~20, one end of the recovery cell 38 is closed by a plug 34 formed of a dense alumina body so that the raw material gas G_1 is introduced into only the reaction cells 40 and 42 without being introduced into the recovery cell 38.